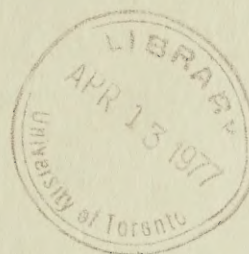




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WAREHOUSE WORKER

AN OCCUPATIONAL PROFILE



Ontario

Ministry of
Colleges and
Universities

Program
Resources
Branch

HEATING, REFRIGERATION & AIR CONDITIONING

WAREHOUSE WORKER

HEATING REFRIGERATION & AIR CONDITIONING

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The History of the Analysis

On February 15, 1974 as a result of a series of meetings between representatives of the Heating, Refrigeration and Air Conditioning Industry, the Government of Ontario and the Federal Government, agreement was reached to participate in a Canada-wide joint Industry Task Analysis Program.

The Program Resources Branch, Ontario Ministry of Colleges and Universities, accepted the responsibility of providing trained analysts to conduct the actual analysis within Ontario with the guidance of a steering committee selected from a cross-section of the industry and operating under the Chairmanship of Mr. W.F. Marshall of Marshall Refrigeration Co. Ltd.

The Program Resources Branch, Ministry of Colleges and Universities wishes to acknowledge the support and assistance of the following members of the H.R.A. Industry Analysis Steering Committee:

W.F. Marshall (Chairman)	Marshall Refrigeration Co. Ltd.
L. Cianfarani	Ontario Sheet Metal & Air Handling Group
P. Drabinsky	Techaire Systems Inc./O.R.A.C.
R.D. Fraser	H.R.A. Institute of Canada
G. Granek	G. Granek & Associates
J.W. Ingram	Shell Canada Ltd./O.P.A.
W. Podd	Mohawk College/R.S.E.S.
P.F. Reynolds	Jenkinson & Co. Ltd./ASHRAE
N.W. Walden	O.R.A.C.
D.R. Wheeler	Lennox Industries (Canada) Ltd./ HRAI

Scope of the Analysis

The analysis contains only those phases of the Industry considered essential in the Province of Ontario. It is limited to the body of knowledge and skills as outlined and agreed to by the Industry Analysis Steering Committee.

It was agreed that the analysis should be broad enough to cover the whole family of occupations which are representative of the Heating, Refrigeration and Air Conditioning Industry up to, but not including, professional or pure management levels. The scope of each of the occupational groups to be covered, including a general breakdown of the industry as defined by the Committee, is represented graphically by Fig. 1.

In January 1973, as a result of a series of meetings between representatives of the industry, the Federal and Air Conditioning Industries, the Government of Ontario and the Federal Government, an agreement was reached to participate in a collaborative joint industry task force program.

The Federal Government, Ontario, and the industry have agreed to participate in a collaborative joint industry task force program. The program will be a collaborative effort between the industry, the Federal Government, and the Province of Ontario. The program will be a collaborative effort between the industry, the Federal Government, and the Province of Ontario. The program will be a collaborative effort between the industry, the Federal Government, and the Province of Ontario.

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Fig. 1

HEATING		AIR CONDITIONING		REFRIGERATION	
Domestic		Automotive		Mobile	
Commercial		Residential		Marine	
Gas		Commerical/Residential		Commerical	
Oil					
	Sheet Metal				
		Electrical			
		Plumbing			
MANUFACTURING		SYSTEM DESIGN	DISTRIBUTION	INSTALLATION AND SERVICE	
Applications Tech.	Design Consultant	Applications Tech.	Applications Tech.		
Sales Tech.	Estimator	Sales Tech.	Estimator		
Telephone Order Desk	Design Draftsman	Purchasing	Sales Tech.		
		Order Desk	Field Inspector		
		Counteraman	Mechanic		
		Order/Picker and/or Stockman	Purchasing		
			Service Order Desk		

Objectives

Although one of the essential aims of this industry/government project is to establish an Ontario standard, it is expected that a number of equally important benefits will be provided such as:

- a basis for effective training to meet the needs of all levels of the industry in order that industry's training resources may be utilized more effectively;
- a career plan with various entry and exit levels to meet individual requirements;
- a basis for common training programs across Canada with a national standard of certification;
- a means for counselling students and attracting young people into a fast growing segment of the economy;
- a means of improving communications between industry and government on training matters.

Statement of Method

The survey, conducted by field analysis teams supervised by Mr. G.I. Bruce, Senior Training Consultant, commenced in the fall of 1974. By means of personal interviews with industry management and employees, the individual tasks comprising each occupation were determined.

The analysis teams, coordinated by G.F. Starink, asked such questions as:

- What does the worker do?
- How does the worker do it?
- Why is he/she doing it?
- What are the skills and knowledge involved?
- What is the minimum acceptable standard of performance expected?

The goals established were to determine which occupations make up the industry, to describe them in terms of performance objectives and performance standards and through these "occupational profiles" to produce a structured training progression.

Data from Statistics Canada was used to determine the population (i.e. companies) distribution for H.R.A. Industries in Ontario. A representative sample, from which valid and reliable data could be extracted, was established with the aid of the Steering Committee using agreed upon guidelines to cover significant differences for: - geographical distribution on a north/south basis; establishment size (1-10 and 11 plus); number and types of companies within each of the heating, refrigeration and air conditioning segments of the industry.

In the Industry sample encompassing over 50 companies across Ontario approximately 100 interviews were conducted and the resultant data recorded.

A task analysis of this data resulted in a consolidation of occupations from the 57 titles found within the industry to the 12 major occupations submitted to the Steering Committee in mid 1975.

The order of completion of the occupational profiles will be in accordance with priorities established by the Steering Committee.

Occupational Profiles

The following occupational profiles have been accepted by the Steering Committee. Occupations not indicated as completed are subject to on-going modification in title and content subject to approval by the committee.

Each profile is a description of the occupation in terms of performance objectives and performance standards for Ontario.

- Refrigeration & Air Conditioning Mechanic
(Completed Dec./75)
- Counterman H.R.A.
(Completed Jan/76)
- Warehouseman H.R.A.
(Completed Jan./76)
- Salesperson
- Heating Serviceman - Gas & Oil
- Design Draftsman (Intermediate, Junior)
- Designer (Technician)
- Designer (Technologist)
- Dispatcher
- Estimator
- Order Desk Clerk
- Purchasing Agent

SPECIFIC PERFORMANCE OBJECTIVES AND CRITERIA FOR : WAREHOUSE WORKER HEATING, REFRIGERATION AND AIR CONDITIONING CCDO No. 93]8-]]0

TERMINAL PERFORMANCE OBJECTIVES : To be able to...	ENABLING OBJECTIVES : Will be able to...	TERMINAL PERFORMANCE CRITERIA : Minimum acceptable standard...
REGULATE STOCK	<ul style="list-style-type: none"> - Assist with inventory checks - Read and utilize material and equipment catalogues to determine description and part number - Assist in layout of stock items for efficient handling - Apply methods of stock control 	<p>Stock items will be set up on the basis of limited available space.</p> <p>Locate stock for accessibility considering sales rate, size, weight, shape, packaging, fragility, control, safety, etc.</p> <p>Locate stock without interfering with:</p> <ul style="list-style-type: none"> - fire exits and fire fighting equipment - traffic areas - vents and drains <p>Perform a stock control function by:</p> <ul style="list-style-type: none"> - maintaining stock records containing an indexing and coding system - reporting minimum stock conditions - monitoring stock utilizing: <ul style="list-style-type: none"> - a location code system - records posting procedures for: <ul style="list-style-type: none"> - in stock quantities - back-orders - returns - exchange - following interoffice procedures for alerting purchasing and accounting

SPECIFIC PERFORMANCE OBJECTIVES AND CRITERIA FOR : WAREHOUSE WORKER HEATING, REFRIGERATION AND AIR CONDITIONING **C C D O No. 9318-110**

TERMINAL PERFORMANCE OBJECTIVES : To be able to...	ENABLING OBJECTIVES : Will be able to...	TERMINAL PERFORMANCE CRITERIA : Minimum acceptable standard...
RECEIVE MERCHANDISE	<ul style="list-style-type: none"> - Maintain prescribed company safety and security in the receiving area - Determine and assemble the required documentation for receiving and distributing - Verify incoming shipments of merchandise and materials including shortages, over shipments and back-orders - Recognize visible signs of damage such as water marks, perforations, stress marks, etc. - Take corrective actions on receipt of damaged goods or order discrepancies - Unload vehicles, pallets, skids, etc. using manual and mechanized means - Open and unpackage merchandise received in various standard configurations and sizes - Select and operate the required tools - Operate weight scales 	<p>Receiving area doors will be secured when not in use.</p> <p>Unauthorized persons will be denied entry.</p> <p>All incoming merchandise and materials must be accounted for and documented properly including recording of weight discrepancy, damage, shortage, over shipment, back-orders and errors in way-bills and purchase orders.</p> <p>Incoming merchandise and materials will be opened or unpackaged in a minimum period of time without damage to contents and following all safety precautions.</p> <p>Process documentation and indicate merchandise for dispatch to storage or shipping area.</p>

SPECIFIC PERFORMANCE OBJECTIVES AND CRITERIA FOR : WAREHOUSE WORKER HEATING, REFRIGERATION AND AIR CONDITIONING C C D O No. 9318-110		
TERMINAL PERFORMANCE OBJECTIVES : To be able to...	ENABLING OBJECTIVES : Will be able to...	TERMINAL PERFORMANCE CRITERIA : Minimum acceptable standard...
STORE AND HANDLE MERCHANDISE	<ul style="list-style-type: none"> - Select mode of transport - Determine and apply methods of handling and storing merchandise including: <ul style="list-style-type: none"> - weight distribution and centre of gravity - stacking limitations of packaging - surface load capacity of shelving and floors - safe handling and storage of hazardous and fragile material - read and understand warning symbols for special handling - rotating stock as required - Recognize potential hazards in poor attitudes and failure to follow strict safety procedures in storage and handling 	<p>Merchandise will be stored and handled in a minimum period of time without sacrificing safety regulation.</p> <p>Stock will be stored according to a prescribed layout and control system.</p> <p>Stock will be secure during handling and storage and will not be damaged nor exceed prescribed limits for lifting, shelving and stacking.</p> <p>Changes in procedures resulting from the identification of potential hazards will be reported.</p>

SPECIFIC PERFORMANCE OBJECTIVES AND CRITERIA FOR : WAREHOUSE WORKER HEATING, REFRIGERATION AND AIR CONDITIONINGCCDO No. 9318-110		
TERMINAL PERFORMANCE OBJECTIVES : To be able to ...	ENABLING OBJECTIVES : Will be able to ...	TERMINAL PERFORMANCE CRITERIA : Minimum acceptable standard ...
PACKAGE AND SHIP MERCHANDISE	<ul style="list-style-type: none"> - Select packing, envelopment and binding for heating, refrigeration and air conditioning equipment and materials - Select and operate tools required for packaging - Pallet package, wrap and bind various shapes, sizes and weights of equipment and materials - Determine, schedule and arrange the mode of transport according to priority, cost, size and weight - Make up bills-of-lading and other associated documentation for shipping - Operate weigh scales - Maintain an adequate stock of packaging materials 	<p>Packaged or palletized equipment and materials will be:</p> <ul style="list-style-type: none"> - secured to prevent movement - protected as required for mode of transport and storage conditions - able to withstand the rigours of loading and unloading - packaged in a minimum period of time without damage to contents and following all safety precautions <p>Label and/or mark destination, weight and handling instructions.</p> <p>All outgoing merchandise must be accounted for and documented properly according to company security regulations.</p>

SPECIFIC PERFORMANCE OBJECTIVES AND CRITERIA FOR : WAREHOUSE WORKER HEATING, REFRIGERATION AND AIR CONDITIONING CCDO No. 9318-110		
TERMINAL PERFORMANCE OBJECTIVES : To be able to...	ENABLING OBJECTIVES : Will be able to...	TERMINAL PERFORMANCE CRITERIA : Minimum acceptable standard...
OPERATE AND MAINTAIN: - FORK LIFT - PUMP TRUCK	<ul style="list-style-type: none"> - Exercise proper controls in steering and maneuverability of the forks - Operate a fork lift and pump truck in a confined or open area - Lift various types of loads, (i.e. pallets, large pieces of machinery, skids, shipping modules, bulky, small and heavy objects, unstable objects...) - Recognize the limitations of the lift (e.g. lifting capacity, exterior dimensions, duration of operation, maximum height attainable by fork) - Replace propane drum or recharge battery - Lubricate in accordance with manufacturer's manual - Clean the machine superficially - Check for visible signs of wear and report any malfunctions 	<p>Operate fork lift and pump truck by performing the following:</p> <ul style="list-style-type: none"> - pre-operational checking procedure - fork lift and pump truck will be moved into various positions such that the forks are aligned, tilted and spaced to ensure clear entry under loads - extend or drive forward, tilt, raise and lower forks to predetermined positions - drive backwards and forwards to maneuver to predetermined positions - fork lift and pump truck will be returned to the park position <p>Safety and security procedures will be strictly adhered to for all operations and maintenance.</p> <p>Maintain fork lift and pump truck by:</p> <ul style="list-style-type: none"> - replacing propane drum or recharging battery when low - reporting visible signs of wear - lubricating in accordance to manufacturer's manual - keeping the machine superficially clean and free from dirt and oil

SPECIFIC PERFORMANCE OBJECTIVES AND CRITERIA FOR : WAREHOUSE WORKER			HEATING, REFRIGERATION AND AIR CONDITIONING CCDO No. 9318-110	
TERMINAL PERFORMANCE OBJECTIVES : To be able to...	ENABLING OBJECTIVES : Will be able to...	TERMINAL PERFORMANCE CRITERIA : Minimum acceptable standard...		
MAINTAIN WORKING AREA	<ul style="list-style-type: none"> - Apply fire department rules and regulations - Recognize and rectify potential hazards such as impeded aisles and spillage - Maintain fire fighting equipment - Perform general housekeeping duties: <ul style="list-style-type: none"> - select and operate cleaning tools and equipment - select materials for cleaning designated surfaces - Prepare large units of waste packaging material for disposal or reuse 	<p>Fire department rules and regulations must be strictly adhered to.</p> <p>Potential hazards must be eliminated and temporary conditions properly designated</p> <p>Warehouse must be maintained clean and clear of debris</p>		

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RECORD AND FILE TRANSACTIONS	<ul style="list-style-type: none"> - Identify business forms commonly used for: <ul style="list-style-type: none"> - shipping - receiving - inter-office communication - Ascertain precisely what information is required from each transaction for record purposes - Make necessary entries for incoming and outgoing stock including: <ul style="list-style-type: none"> - errors or omissions - damage - quantity - deviations from purchasing specifications - Determine relevant information and methods for alerting purchasing and accounting - Utilize applicable manual filing systems and methods for efficient warehouse operation - Cross-reference, retrieve and store files 	<p>Select the proper business form for a specific transaction.</p> <p>Gather material necessary for completing the form by retrieving necessary files and information.</p> <p>Business forms must be:</p> <ul style="list-style-type: none"> - accurate - complete - legible - neat <p>Dispatch copies to designated places according to inter-office procedures.</p> <p>Store records in the correct place according to the system in use and cross-reference if necessary.</p>

SPECIFIC PERFORMANCE OBJECTIVES AND CRITERIA FOR : WAREHOUSE WORKER HEATING, REFRIGERATION AND AIR CONDITIONING CCDO No. 9318-110		
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LIFT LOADS MANUALLY	<ul style="list-style-type: none"> - Determine load weights that can be safely lifted considering the following: <ul style="list-style-type: none"> - unrestricted access of load - shape of load - bulk of load - type of surface from which the lift is to be made - lift height - material handling aids for lifting supplied by the company such as: chain falls, levers, etc. - Determine and apply manual lifting techniques, principal rules of holding and carrying, and safety precautions to be observed when lifting alone and with assistance 	<p>Demonstrate correct lifting procedures prior to the actual lift.</p> <p>Ascertain if the load can be safely lifted manually.</p> <p>Make the lift following established safety procedures.</p>

SPECIFIC PERFORMANCE OBJECTIVES AND CRITERIA FOR : WAREHOUSE WORKER			HEATING, REFRIGERATION & AIR CONDITIONING	CCDO No. 9318-110
TERMINAL PERFORMANCE OBJECTIVES : To be able to ...	ENABLING OBJECTIVES : Will be able to ...	TERMINAL PERFORMANCE CRITERIA : Minimum acceptable standard ...		
SELECT: - MERCHANDISE	<ul style="list-style-type: none"> - Identify merchandise from a minimum of information including: <ul style="list-style-type: none"> - manufacturer's brand name, model and part number - stock control number 	<p>Items will be located and supplied within a minimum period of time.</p> <p>Verify that the selected merchandise number and stock control number corresponds to the requisition, shipping invoice, etc.</p> <p>Appropriate measurements will be taken on uncoded and partially coded materials.</p>		

